

THAMES RIVER BASIN

01122000 NATCHAUG RIVER AT WILLIMANTIC, CT

LOCATION.--Lat 41°43'11", long 72°11'46", Windham County, Hydrologic Unit 01100002, on left bank at upstream side of bridge on State Route 66, 1 mi northeast of Willimantic, 1.6 mi upstream from mouth, and 3.7 mi downstream from Mansfield Hollow Dam.

DRAINAGE AREA.--174 mi².

PERIOD OF RECORD.--Discharge: October 1930 to September 1989, October 1995 to current year.

Water-quality records: Water years 1954, 1958, 1968.

REVISED RECORDS.--WSP 1301: 1934-35(M), 1937(M). WDR CT-83-1: Drainage area.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 150.31 ft above sea level (levels by Corps of Engineers). Oct. 6, 1930, to June 6, 1974, water-stage recorder on right bank 500 ft upstream at same datum. June 6, 1974 to Aug. 26, 1975, staff gage at present site and datum. Telephone telemetry at station. Satellite telemetry at station.

REMARKS.--No estimated daily discharges. Records good. City of Willimantic diverts an average of about 1.8 Mgal/d for municipal supply from reservoir 2 mi upstream. Operation of water wheels at this location causes diurnal fluctuation at low flow. Flow regulated since March 1952 by Mansfield Hollow Lake.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999 DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	22	80	254	84	358	1000	468	132	120	39	31	27
2	24	80	239	82	455	1590	386	107	93	38	30	27
3	22	80	234	208	1150	1240	384	70	93	36	31	27
4	21	79	206	336	2020	1280	352	75	91	39	30	26
5	21	80	68	515	1850	2030	276	77	91	33	30	26
6	20	79	79	496	881	1620	274	142	90	31	32	29
7	21	79	79	478	457	1080	274	204	75	31	30	28
8	39	79	81	459	592	651	274	206	33	30	34	33
9	47	79	80	509	521	640	264	207	32	30	32	28
10	109	78	80	486	475	581	279	213	33	31	31	62
11	190	92	80	472	470	405	246	201	32	31	31	38
12	185	85	79	456	466	409	200	198	32	30	32	30
13	181	82	80	441	469	451	207	196	33	31	30	29
14	191	82	79	311	464	511	207	171	33	30	38	29
15	287	82	79	254	459	523	207	116	32	31	34	37
16	383	82	79	291	376	574	208	127	32	30	32	179
17	373	85	82	580	241	714	212	126	33	29	31	460
18	284	83	80	858	321	578	219	126	33	32	32	677
19	245	83	80	1130	722	574	200	141	32	71	29	388
20	237	83	80	1570	752	569	234	190	254	40	29	205
21	179	83	80	1660	687	563	266	334	32	34	41	139
22	70	83	82	1390	407	956	274	336	29	32	34	82
23	72	83	81	734	92	1710	276	324	29	33	32	80
24	72	82	80	845	84	1600	275	355	28	32	29	80
25	72	83	80	1350	89	819	272	350	30	33	30	80
26	60	95	81	1720	139	542	269	341	28	43	33	79
27	77	93	81	1120	333	635	266	338	28	35	32	75
28	80	88	81	667	461	647	271	304	29	33	31	72
29	82	170	84	580	---	643	241	201	30	31	30	70
30	80	251	90	364	---	632	155	195	30	32	29	84
31	80	---	85	361	---	617	---	194	---	32	30	---
TOTAL	3826	2743	3103	20807	15791	26384	7936	6297	1590	1063	980	3226
MEAN	123	91.4	100	671	564	851	265	203	53.0	34.3	31.6	108
MAX	383	251	254	1720	2020	2030	468	355	254	71	41	677
MIN	20	78	68	82	84	405	155	70	28	29	29	26

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1931 - 1999, BY WATER YEAR (WY)

MEAN	150	268	350	385	401	617	576	355	235	115	95.5	126
MAX	880	844	1082	1183	932	1681	1315	676	1298	887	836	1523
(WY)	1956	1956	1997	1979	1970	1936	1987	1989	1982	1938	1955	1938
MIN	19.3	31.0	70.0	61.6	88.9	270	194	119	35.3	11.8	10.3	11.2
(WY)	1931	1932	1932	1981	1980	1989	1985	1957	1957	1957	1957	1943

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SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1931 - 1999	
ANNUAL TOTAL	131047		93746			
ANNUAL MEAN	359		257		306	
HIGHEST ANNUAL MEAN					550	
LOWEST ANNUAL MEAN					142	
HIGHEST DAILY MEAN	2760	Mar 13	2030	Mar 5	18200	Sep 21 1938
LOWEST DAILY MEAN	20	Oct 6	20	Oct 6	2.3	Sep 11 1943
ANNUAL SEVEN-DAY MINIMUM	22	Oct 1	22	Oct 1	3.9	Jul 25 1949
INSTANTANEOUS PEAK FLOW			2150	Feb 4	^a 32000	Sep 21 1938
INSTANTANEOUS PEAK STAGE			7.04	Feb 4	^b 16.39	Sep 21 1938
INSTANTANEOUS LOW FLOW			14	Oct 26	.30	Aug 6 1937
10 PERCENT EXCEEDS	801		633		675	
50 PERCENT EXCEEDS	217		85		195	
90 PERCENT EXCEEDS	53		30		36	

^a From computation of peak flow over dam 2 mi upstream.

^b From floodmarks.

